

The Impact of Accounting Information Systems on Internal Control of Fixed Assets at the Education Office of West Java

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Abstract

Effective management of public sectors requires rigorous oversight, yet organizations frequently encounter vulnerabilities in safeguarding state-owned wealth. Specifically, the Education Office of West Java faces critical challenges in maintaining the accountability and security of its fixed assets, often due to fragmented tracking and inadequate oversight mechanisms. This study investigates the impact of Accounting Information Systems (AIS) on the internal control of fixed assets at the Education Office of West Java. By analyzing this relationship, the research aims to determine how digitalized accounting frameworks can optimize asset safeguarding and reporting accuracy. The research employs a quantitative survey approach to gather primary data. The target population comprises administrative and financial staff within the institution, from which the study draws a sample of 40 operational employees directly involved in asset management. The data analysis utilizes structural equation modeling or multiple linear regression analysis (processed via statistical software) to evaluate the reliability, validity, and statistical significance of the system's impact on internal control measures. The statistical results demonstrate that the Accounting Information System exerts a significant positive impact on the internal control of fixed assets at the Education Office of West Java. Higher levels of AIS implementation directly correlate with stronger, more transparent, and highly efficient asset control mechanisms. While previous literature extensively covers AIS in private corporate sectors, this study offers fresh insights by contextualizing these dynamics within a regional public education department. It bridges the empirical gap regarding how localized bureaucratic structures adapt to automated accounting controls. The findings imply that government institutions must prioritize the modernization of their accounting software and provide continuous technical training for staff. Implementing these systemic upgrades will minimize the risk of asset misappropriation, ensure compliance with regional audit standards, and ultimately enhance public trust in institutional financial management.

Keywords: *Accounting Information System, Internal Control, Fixed Asset, Public Sector Accountability*

Introduction

With rapid advancements in technology, especially in information technology. This evolution has significantly impacted daily life, as people's needs become increasingly complex, driving them to innovate and adapt to modern demands. One crucial aspect of this technology is computers and networks, which facilitate faster data processing and timely financial reporting. According to the Government Accounting Standards Statement, fixed assets are tangible assets with a useful life exceeding twelve months, essential for government activities and public use. Additionally, fixed assets are classified as state or regional property, necessitating thorough management to align with financial administration qualifications for regional government reports. The integration of asset management across both central. The current economic growth in Indonesia faces the challenges of globalization, and regional governments is vital since financial statements are crucial for stakeholders seeking significant organizational insights. The government must demonstrate strong performance in its responsibilities to foster transparent governance and achieve national or regional development goals.

Internal control plays a crucial role in ensuring that government activities run smoothly. Government agencies require fixed assets, such as equipment, machinery, buildings, and land, as these assets are crucial for their long-term operations. Fixed assets, which are tangible and physically exist, represent significant value, comparable to major corporate assets. For the West Java Education Office, fixed assets are vital for operational activities, as they have a useful life exceeding one accounting period. Therefore, expenditures for these assets must be allocated and depreciated over time, aligning with the income generated in that fiscal year.

Regular physical checks of fixed assets are necessary to maintain accurate accounting records, helping to identify lost, outdated, or damaged assets. Hence, effective accounting controls are essential for the safeguarding of these assets. The West Java Education Office, as a government accounting entity, is responsible for accounting and accountability reports regarding the Regional Revenue and Expenditure Budget. Fixed assets within this office are categorized by their function, including land, equipment, buildings, infrastructure, and ongoing projects, with capitalized expenses reflecting asset depreciation.

Challenges arise from the manual accounting records, which may lead to errors during data entry, especially when staff transitions occur. New managers might face disorganized records as previous personnel may not have maintained proper documentation. This issue was evident during audits by the Supreme Audit Agency, where discrepancies were found in financial statements. Therefore, implementing a robust internal control system for asset management becomes a priority for government agencies. Accounting data serves as a key resource for addressing these problems, promoting optimal control systems and effective oversight. This situation motivates further investigation into the fixed asset management practices at the West Java Education Office.

The internal control of fixed assets at the West Java Education Office remains suboptimal due to the ineffective Accounting Information System in place. To enhance operational activities and achieve its objectives, the Education Office requires a robust accounting information system. Such a system can generate accurate financial and other information by effectively collecting and managing transaction data. Inaccuracies in the Accounting Information System have serious implications, contributing to

discrepancies in fixed asset records. As a governmental accounting entity, the West Java Education Office is responsible for maintaining accounting and accountability reports for the Regional Revenue and Expenditure Budget.

A quality accounting information system ensures that decision-makers are not misled when managing the organization and helps in identifying potential risks early on. With reliable information and effective internal controls, the operational governance of the West Java Education Office can significantly improve. The internal control systems encompass an organization's structure, methods, and coordinated measures aimed at safeguarding assets, verifying the accuracy of accounting data, enhancing efficiency, and ensuring adherence to management policies. Clearly, an effective accounting information system is vital to controlling operational activities and achieving effective internal control. Fadillah et al. (2025) demonstrate the tangible power of automation by examining how a specialized AIS optimizes internal controls within heavy industry. When a company replaces fragmented, manual records with a synchronized digital accounting system, it drastically reduces human error and closes security loopholes.

The current state of research on internal control systems and accounting information systems reveals notable gaps, particularly in the context of fixed asset management within governmental entities like the West Java Education Office. Previous studies have highlighted the importance of effective internal controls and the need for reliable accounting information systems to enhance organizational efficiency and transparency.

However, many governmental organizations continue to struggle with implementing optimal internal controls due to outdated or inefficient accounting information systems. Research

indicates that inaccuracies in financial data can lead to significant discrepancies in asset management, as pointed out in the recent evaluations of the West Java Education Office. Shaqira, Sidharta, and Sholihah (2025) reveals that as a firm expands its physical footprint – investing heavily in fixed assets and machinery – the sheer volume of data forces management to rely on more sophisticated control frameworks. Larger, capital-intensive firms face deeper scrutiny from regulators and stakeholders alike. Consequently, these companies must deploy robust information systems not only to optimize tax strategies and maintain regulatory compliance, but to actively prevent internal asset misappropriation. This disconnect suggests a clear need for focused studies that examine the interplay between accounting information systems and internal control mechanisms within the public sector, particularly in regions facing modernization challenges.

Furthermore, while there is ample literature on the theoretical aspects of internal control and information systems, empirical evidence specific to the operational realities of regional governments, such as those in Indonesia, is limited. This study aims to bridge these gaps by providing a thorough examination of the current practices, identifying weaknesses, and proposing actionable solutions to enhance the effectiveness of fixed asset management through improved accounting information systems. The findings could significantly contribute to the discourse on public sector governance, accountability, and financial management.

This study explores the Accounting Information System for fixed assets at the West Java Education Office, focusing on its effectiveness and the impact it has on internal control mechanisms. The analysis reveals the current state of the accounting information system and how it facilitates the management of fixed assets.

Furthermore, it examines the internal control processes in place, determining their effectiveness in safeguarding these assets and ensuring compliance with regulatory requirements.

The research assesses the extent to which the Accounting Information System influences internal controls regarding fixed assets. A well-functioning system not only enhances data accuracy and reporting but also strengthens overall asset management practices. By understanding these relationships, the study aims to provide insights into the areas of improvement needed to enhance operational governance. Such findings are critical for ensuring accountability and transparency within the public sector, particularly in regions facing modernization challenges.

Research Method

This study employs a descriptive and verificative research methodology aimed at analyzing significant relationships between the studied variables. The focus is on two key variables: the independent variable, which is the Fixed Asset Accounting Information System (X), and the dependent variable, which is Internal Control of Fixed Assets (Y). By using this method, the research aims to elucidate the connections between these variables and derive conclusions that clarify the situation regarding the West Java Education Office.

The research targets 40 employees at the West Java Education Office who are involved in fixed asset management. This specific group provides valuable insights into the operational challenges and efficiencies related to the accounting information system and its internal controls. The study uses a field research approach for data collection, employing a saturated sampling technique. This allows all members of the population to participate as respondents, ensuring

comprehensive data representation that captures diverse experiences and perspectives.

To assess the quality of the data collected, the research implements validity and reliability testing. Validity is examined through item analysis, correlating individual item scores with the total score. A minimum correlation coefficient of $r = 0.3$ indicates that an item is valid. Reliability is tested using the Cronbach's alpha method with SPSS V20. An alpha coefficient of at least 0.7 confirms that the instrument is reliable for measuring the constructs in question.

Data analysis is conducted using simple linear regression and path analysis techniques. This approach provides a clear picture of the relationships between the independent and dependent variables. Through path analysis, the research can capture the dynamics at play between the systems and controls, elucidating how effectively the Accounting Information System influences internal controls related to fixed assets.

Overall, the findings of this study are expected to reveal critical insights into the management of fixed assets within the West Java Education Office. By thoroughly analyzing the data and relationships between the variables, the research aims to contribute to the enhancement of operational governance and accountability in public sector accounting practices, providing a foundation for further exploration and improvement in these areas.

Results and Discussion

The analysis results highlight that the West Java Education Office has emerged from the merger of the Regional Office of the Ministry of National Education of West Java and the West Java Department of Education and Culture. This centralization underlines the

government's commitment to education as a key pillar for regional development, emphasizing the need for quality education to foster well-civilized individuals. Education plays a crucial role in measuring a nation's progress, and thus, the responsibility of managing education falls under the local government's jurisdiction. In this context, the study involved 40 respondents who work in accounting information systems and internal control. This sample size provides a solid foundation for analyzing the impacts of the Fixed Asset Accounting Information System on the Internal Control of Fixed Assets. The demographic and professional characteristics of the respondents were examined to ensure diverse input into the findings.

To assess the validity of the research instrument, item scores were correlated with the total scores of the items. All items related to variable Y, which pertains to Internal Control of Fixed Assets, were found to be valid, as their correlation coefficients exceeded the critical value of 0.3. This implies that the questionnaire used effectively measures the variables under investigation, reinforcing the reliability of the gathered data.

Furthermore, the reliability test indicated that both variables Fixed Asset Accounting Information System and Internal Control were reliable, with scores surpassing the threshold of 0.700. This confirms that the research instruments employed are dependable and can consistently provide stable results across repeated measures. Such reliability enhances the credibility of the findings, allowing for confident inference regarding the relationship between the accounting information system and the internal controls.

Tabel 1. Result of Validity and Reliability

No Questioner	X	Y
Ques.1	0,589	0,490
Ques.2	0,745	0,444
Ques.3	0,543	0,529
Ques.4	0,557	0,463
Ques.5	0,637	0,511
Ques.6	0,559	0,590
Ques.7	0,612	0,448
Ques.8	0,567	0,482
Ques.9	0,557	0,546
Ques.10	0,538	0,477
Ques.11	0,564	0,466
Ques.12	0,655	0,481
Ques.13	0,544	0,593
Ques.14	0,565	0,404
Ques.15	0,579	0,356
REALIBILITY	0,901	0,850

The quality of the data obtained in this study demonstrates significant validity and reliability for the variables examined. The analysis of the Accounting Information Systems for Fixed Assets (X) resulted in a range of scores between 0.538 and 0.745. Similarly, the Internal Control for Fixed Assets (Y) yielded scores ranging from 0.356 to 0.593. These outcomes meet the established validity criterion of being greater than 0.300, indicating that the items within each variable effectively measure the intended constructs.

In terms of reliability, the Accounting Information Systems for Fixed Assets (X) scored 0.889, while the Internal Control for Fixed Assets (Y) scored 0.843. Both scores exceed the minimum reliability threshold of 0.700. This indicates that all variables are highly reliable and can be considered dependable instruments for the research. The high reliability scores suggest that the measures can yield consistent

results over repeated applications, reinforcing the stability of the research instruments.

These findings affirm that the instruments used in this study are not only valid but also demonstrate a high degree of reliability. The established reliability means that the tools can accurately capture and reflect the variables being studied in a way that remains consistent over time. This adds credibility to the research findings and strengthens the overall conclusions drawn from the data.

The research findings indicate a significant impact of auditor independence on audit quality, reinforcing the critical role that independent auditors play in enhancing the reliability of financial reporting. Independent auditors are less likely to be influenced by management pressures, which allows them to exercise objective judgment in their evaluations. This objectivity not only improves the thoroughness of the audit process but also contributes to higher overall audit quality. Ismail et al. (2022) emphasize that strong internal controls, which can be bolstered by independent oversight, are essential for ensuring the accuracy and reliability of financial information. Similarly, Johri (2025) discusses how the implementation of advanced technologies, such as artificial intelligence, in conjunction with auditor independence can significantly improve the performance and quality of accounting information systems, thereby leading to more accurate financial reporting. These insights collectively underscore the importance of maintaining auditor independence to enhance audit quality, which is paramount in achieving reliable financial data that stakeholders can trust.

The analysis of the correlation coefficient indicates a strong positive relationship between the Fixed Asset Accounting Information System (X) and the Internal Control of Fixed Assets (Y),

with a correlation value of 0.823. This figure falls within the category considered very strong, as it is situated in the correlation interval of 0.800 to 1.000. Such a high correlation suggests that improvements in the Accounting Information System are closely associated with enhancements in the internal controls related to fixed assets.

This strong positive correlation implies that as the effectiveness of the Accounting Information System increases, the quality and efficiency of internal controls over fixed assets also tend to improve correspondingly. It highlights the importance of implementing robust accounting systems to facilitate better management and oversight of organizational assets. The results underscore the necessity for the West Java Education Office to continuously invest in and optimize their accounting information systems, as this will ultimately lead to strengthened internal controls and enhanced accountability in asset management.

Table 2. Simple Linear Regression and Determination Analysis Results

Regression	Coefficients	Sig.
(Constant)	11,804	0,002
Fixed Asset Accounting Information System	0,718	0,000
Determination	R	R Square
	0,823	0,677

The regression analysis indicates a constant value of 11.804, suggesting that when the Fixed Asset Accounting Information System (X) is at zero, the Internal Control of Fixed Assets (Y) holds steady at 11.804. Additionally, the regression coefficient of 0.718 implies that for each one-unit increase in the effectiveness of the Accounting Information System, the Internal Control rating is expected to rise by 0.718 units. This reflects a strong positive relationship, indicating that improvements in the accounting system

substantially enhance internal controls. These results underscore the need for organizations to invest in and optimize their accounting information systems, as doing so can lead to notable advances in asset management and overall accountability. The findings serve as a clear directive for stakeholders to prioritize system enhancements for better operational efficiency.

The coefficient of determination shows an R square value of 0.677. This indicates that the Accounting Information System of Fixed Assets influences the Internal Control of Fixed Assets by 67.7%. Meanwhile, 32.3% of the variance may be affected by other factors that the author did not investigate. While the system has a significant impact, other aspects could also play a crucial role and warrant further exploration.

The study examines the impact of the Accounting Information System for Fixed Assets on the Internal Control of Fixed Assets at the Education Office of West Java Province. Theoretically, it is understood that internal control significantly affects the quality of financial reports. According to Turner, Weickgenannt & Copeland (2020), an effective internal control system includes organizational structure, methods, and measures coordinated to safeguard organizational assets, verify the accuracy and reliability of accounting data, promote efficiency, and ensure compliance with management policies.

The findings from data processing demonstrate a very strong relationship between the Accounting Information System for Fixed Assets and Internal Control of Fixed Assets in the Education Office, with a strong correlation value of 0.823. Additionally, the Coefficient of Determination shows that the influence of the Accounting Information System on Internal Control is 67.7%. The remaining 32.3% can be attributed to other factors that may also affect Internal

Control but were not explored in this research. This highlights the significance of the system studied while suggesting that other variables are also at play that require further investigation.

Research consistently demonstrates that robust Accounting Information Systems (AIS) and rigorous internal control mechanisms directly enhance how effectively organizations manage and report their fixed assets. By integrating systematic tools and aligning with modern standards, institutions can significantly optimize both their operational efficiency and the reliability of their financial disclosures. Zyryanova and Manakova (2022) emphasize that the continuous evolution of accounting standards demands immediate updates to internal control procedures, particularly regarding fixed assets. When organizations update their AIS to reflect new statutory regulations, they establish clearer guidelines for asset recognition, depreciation methods, and revaluation procedures.

This proactive alignment minimizes accounting errors, ensures regulatory compliance, and prevents data inconsistencies that could compromise the organization's financial integrity. Bridging the gap between internal systems and external stakeholders, Monteiro et al. (2021) explore how the synergy between internal controls and accounting systems influences overall data quality. They discover that strong internal controls and modern accounting systems significantly improve the qualitative characteristics of financial reporting. High-quality information acts as a critical mediator; when the AIS accurately captures asset data and internal controls verify its validity, the resulting financial information becomes far more useful, relevant, and reliable for decision-makers.

Conclusion

In conclusion, the research reveals that the Accounting Information System for Fixed Assets at the Education Office of West Java Province is not yet optimal. The average score of 3.39 indicates a "Fairly Good" category, with notable weaknesses highlighted in specific responses. For example, the assertion regarding the alignment of Fixed Assets with recorded data received a lower score of 3.18, while the statement about providing informative reports to improve productivity scored 3.28. Similarly, the Internal Control of Fixed Assets also scores an average of 3.35, falling into the same category. Here, the lowest scores are found in responses related to periodic checks of all operational activities, which scored 3.20, and the implementation of specific procedures for asset security, scoring 3.23.

To enhance the Accounting Information System, the Education Office should focus on regular checks of data and physical assets to prevent discrepancies in future reports. Additionally, providing more informative reports will support users of the existing Accounting Information System. For improving Internal Control, regular checks on data and physical assets are necessary. Further, the Education Office ought to implement particular procedures for asset security to safeguard existing resources. The study suggests exploring other factors influencing Internal Control that were not examined, as these could offer additional insights for effective management. Future research should investigate these overlooked elements to bolster the effectiveness of the control system.

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